OL'KHOVSKIY, V.S. [Ol'khovs'kyi, V.S.]; TSEKHMISTRENKO, Yu. V.

Analytical structure of the S-function of elastic scattering in the case of infinite potentials. Ukr. fiz. zhur. 6 no.2:149-156 Mr-Ap '61. (MIRA 14:6)

1. Kiyevskiy ordena Lenina gosudarstvennyy universitet im. T. G. Shevchenko i Institut fiziki AN USSR.
(Neutrons--Scattering)
(Functions of complex variables)
(Potential, Theory of)

S/185/62/007/012/001/021
D234/D308

24,6500

AUTHORS: Ol'khovs'kyy, V.S. and Tsekhimistrenko, Yu.V.

TITLE: The elastic scattering of neutrons on non-spherical nuclei with rotational spectrum

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal. v. 7, no. 12, 1962, 1265 - 1270

TEXT: Using the effective single-particle equation deduced previously by Yu. V. Tsekhimistrenko, the authors obtain

$$f(\theta,\varphi) = \frac{i}{2k_0} \sum_{l,m} \sqrt{4\pi(2l+1)}\, Y_{lm}(\theta,\varphi)(1 - S_{lm}). \quad (21)$$

where S_{lm} = Scattering matrix

for the amplitude of elastic scattering. The effect of the formation of a compound nucleus is taken into account. With the aid of this method, the angular distribution of 2.8 Mev neutrons scattered on Mg^{24} is calculated and found to agree with experimental results almost completely (β_{eff} is assumed to be 0.35). The simple optical

Card 1/2

model of Feschbach and others gives a much less satisfactory agreement. There is 1 figure.

ASSOCIATION: Kyyivs'kyy derzhuniversytet im. T.H. Shevchenka (Kiev State University im. T.H. Shevchenko), Instytut fizyky AN URSR, Kyyiv (Institute of Physics, AS UkrSSR, Kiev)

SUBMITTED: June 9, 1962

Card 2/2

S/185/62/007/012/017/021
D234/D308

26.2242

AUTHORS: Ol'khovs'kyy, V.S. and Tsekhimistrenko, Yu.V.

TITLE: The inelastic scattering of neutrons on non-spherical nuclei possessing rotational spectra

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 12, 1962, 1363 - 1364

TEXT: For the case of excitation of the first rotational level of even-even nuclei, the authors solve

$$\left(-\frac{\hbar^2\Delta}{2\mu} + \langle 2M \mid V \mid 2M \rangle - E + \varepsilon_1\right)\psi_1 = 0, \qquad (4)$$

obtaining

Card 1/2

OL'KHOVSKIY, V.S. [Ol'khovs'kyi, V.S.]; TSEKHMISTRENKO, Yu.V.

Polarization in neutron scattering by nuclei with rotational and vibrational spectra. Ukr. Fiz. zhur. 9 no.2:220-223 F'64 (MIRA 17:7)

1. Kiyevskiy gosudarstvennyy universitet imeni Shevchenko i Institut fiziki AN UkrSSR, Kiyev.

ACCESSION NR: AP4022696 S/0185/64/009/003/0251/0259

AUTHOR: Ol'khovs'ky*y, V. S. (Ol'khovskiy, V. S.); Tsekhmistrenko, Yu. V.

TITLE: Elastic and inelastic scattering of neutrons by nuclei with rotational and vibrational spectra

SOURCE: Ukrayins'ky*y fizy*chny*y zhurnal, v. 9, no. 3, 1964, 251-259

TOPIC TAGS: neutron scattering, optical model, statistical scattering model, nuclear potential, effective potential method, elastic neutron scattering, inelastic neutron scattering, M-20 computer, 0.5-3 MeV neutron

ABSTRACT: The method of effective potentials was applied to the dynamical problem of elastic and inelastic scattering of neutrons with energies 0.5-3 MeV by non-spherical nuclei with a rotational spectrum and by spherical nuclei with a vibrational spectrum. The scattering which goes through the stage of formation of a compound nucleus was taken into account. The calculations, which were carried out by means of electronic computer M-20, show that the best agreement between the proposed model and the experimental data on the scattering of neutrons by nuclei of C^{12}, Ne^{20}, Mg^{24}, Ti^{48}, Fe^{56}, Pb^{208}, Th^{232}, U^{238}, is attained with the following values of the parameters: the depth of the real part of potential U_0 = 50 MeV; the depth

Card 1/2

ACCESSION NR: AP4022698

of the imaginary part W_0 = 1 MeV; the nucleus radius $R = (1.22\sqrt[3]{A} + 0.74) \cdot 10^{-13}$ (A is the mass number of the element). Moreover, the proposed model gives results which are closer to the experimental data than those of the simple optical model of Feshbach, Porter and Weisskopf and the statistical model of Hauser and Feshbach.

Orig. art. has: 7 sets of numbered equations as well as 13 graphs, each of which compare, for different combinations of target isotope and incident neutron energy, the experimental results of the angular dependence of scattering cross-section with results obtained using the authors' method and results based on optical-model and statistical-model calculations.

ASSOCIATION: Ky*yivs'ky*y derzhuniversy*tet imeni T. G. Shevchenko (Kiev State University); Insty*tut fizy*ky* AN Ukr.SSR, Kiev (Institute of Physics AN UkrSSR)

SUBMITTED: 15Jul63 DATE ACQ: 08Apr64 ENCL: 00

SUB CODE: NS, PH NO REF SOV: 008 OTHER: 016

Card 2/2

BR

ACCESSION NR: AP4022697 S/0185/64/009/003/0260/0265

AUTHOR: Ol'khovs'ky*y, V. S. (Ol'khovskiy, V. S.)

TITLE: Scattering of nucleons by nuclei with shell properties

SOURCE: Ukrayins'ky*y fizy*chny*y zhurnal, v. 9, no. 3, 1964, 260-265

TOPIC TAGS: nucleon scattering, elastic nucleon scattering, inelastic nucleon scattering, effective potential method, nucleon scattering dynamics, shell-type nuclear scatterer, shell-property nuclear target, potential operators, optical model

ABSTRACT: The method of effective potentials was used to investigate the dynamic problem of the elastic and inelastic scattering of nucleons by nuclei with shell properties. New expressions are obtained for the amplitudes of collisions with redistribution of particles and for exchange amplitudes. The matrix elements entering into the potential operators are calculated. The conclusion is drawn that the ordinary optical model should describe sufficiently well the non-exchange elastic scattering of nucleons by nuclei with shell properties.

"In conclusion, [the author] is most grateful to Yu. V. Tsekhmistrenko for [his] guidance in this work." Orig. art. has: 23 numbered equations.

Card 1/2

ACCESSION NR: AP4022697

ASSOCIATION: Kyyivs'kyy Derzhuniversytet im. T. G. Shevchenko (Kiev State University)

SUBMITTED: 17Aug63 DATE ACQ: 06Apr64 ENCL: 00

SUB CODE: PH, NS NO REF SOV: 008 OTHER: 002

Card 2/3

OL'KHOVSKIY, V.S. [Ol'khovs'kyi, V.S.]; Prinimal uchastiye: ZAYCHENKO, O.K.

Inelastic scattering of fast neutrons by nuclei with spectra of the collective type. Ukr. fiz. zhur. 10 no.5:565-566 My '65. (MIRA 18:5)

1. Kiyevskiy gosudarstvennyy universitet im. Shevchenko.

TSEKHMISTRENKO, Yu.V.; OL'KHOVSKIY, V.S.

Arriving at a correct theory of nuclear reactions with particle redistribution. Izv. AN SSSR. Ser. fiz. 29 no.7:1207-1211 Jl '65.
(MIRA 18:7)

1. Institut fiziki AN UkrSSR i Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.

Ol'khov, G.A.

25(5) PHASE I BOOK EXPLOITATION SOV/2393

Leningrad. Politekhnicheskiy institut

Mashinostroyeniye; ekonomika, organizatsiya i planirovaniye proizvodstva (Machinery Manufacturing; Economics, Organization and Planning of Production) Moscow, Mashgiz, 1958. 110 p. (Series: Its: Trudy, Nr 200) Errata slip inserted. 2,800 copies printed.

Sponsoring Agency: USSR, Ministerstvo vysshego obrazovaniya.

Resp. Ed.: V.S. Smirnov, Doctor of Technical Sciences, Professor; Eds.: Ye. M. Karlik, Candidate of Economic Sciences, Docent; and S.A. Sokolitsyn, Candidate of Technical Sciences, Docent; Tech. Ed.: R.G. Pol'skaya.

PURPOSE: This collection of articles is intended for engineering and technical personnel of machine-manufacturing establishments.

COVERAGE: This collection covers the theoretical aspects of the

Card 1/4

economics, organization, and planning of production and the actual operation of machine-manufacturing establishments. The first five articles deal with problems of classifying production lines for lot production, variations of the flow of lots of parts, and duration of the machining cycle, etc. The remaining articles are devoted to the economic efficiency of new technology, problems of quality control, and to the question of specialization and cooperation. No personalities are mentioned. References are given at the end of several articles.

TABLE OF CONTENTS:

Machinery Manufacturing; (Cont.)

AVAILABLE: Library of Congress

JG/ec
10-16-59

Card 4/4

OL'KHOV, G.A.

p. 6

25(5) PHASE I BOOK EXPLOITATION SOV/1212

Potochnyye metody proizvodstva v seriynom mashinostroyenii i priborostroyenii (Assembly-line Methods in Serial Manufacturing of Machinery and Tools) Moscow, Mashgiz, 1958. 325 p. 3,500 copies printed.

Eds.: Berman, A.G., Candidate of Economic Sciences, and Neymark, A.I., Candidate of Technical Sciences; Eds. of Publishing House: Varkovetskaya, A.I., and Chfas, M.L.; Tech. Ed.: Sokolova, L.V.; Managing Ed. for Literature on Technical Machine Building (Leningrad Division, Mashgiz): Naumov, Ye. P.

PURPOSE: This book is intended for production managers, dispatchers, and engineering personnel engaged in the production of machinery and instruments. It may also be useful to scientific workers, planning personnel, and vtuz students specializing in industrial engineering.

Card 1/8

COVERAGE: The book contains background material for the 1958 Conference on Methods of Line Production scheduled under the auspices of the Committee on Production Organization of the Leningrad regional administration NTO of the machinery manufacturing industry. The Committee's recommendation for this Conference was prompted by the inadequate development of line production methods and techniques in Leningrad plants specializing in series [large-scale] production of machinery and instruments. Theoretical studies based on Soviet industrial practices are presented in Part I of this book. Part II discusses the introduction and development of line production methods in Leningrad plants while Part III reviews foreign literature and some of the more pertinent problems of line production as seen by foreign authors. There are no references.

TABLE OF CONTENTS:

VELIKANOV, Karp Miromovich. Prinimali uchastiye: BARNASHEVA, O.K.; GOLDOBIN, M.A.; ZOLOTUKHINA, O.A.; KARANDASHOVA, K.B.; OL'KHOV, G.A.; SAVINA, V.N.; FAYERMAN, A.I. SKRELIN, V.I., inzh., retsenzent; NIKIFOROV, A.F., dotsent, red.; BORODULINA, I.A., red.izd-va; SPERANSKAYA, O.V., tekhn.red.

[Determining the economic efficiency of various methods for machining parts] Opredelenie ekonomicheskoi effektivnosti variantov mekhanicheskoi obrabotki detalei. Moskva, Mashgiz, 1961. 211 p. (MIRA 14:12)
(Metal cutting)

OL'KHOV, G.A.

Evaluating the efficiency of separating the automatic line into sections without the introduction of doubler units. Trudy LIP no.227:118-124 '63. (MIRA 17:4)

SOV/136-59-3-14/21

AUTHORS: Brokhin, I.S., Ol'khov, I.I.

TITLE: The Scale-stability of Cermet Alloys Based on Titanium Carbide (Okalinostoykost' metallokeramicheskikh splavov na osnove karbida titana)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 3, pp 61 - 66 (USSR)

ABSTRACT: The initial materials were titanium dioxide, niobium pentoxide, powdered niobium (containing 1-3% tantalum), tungsten carbide, lamp-black and powdered cobalt reduced from its oxalate. Alloys were prepared by mixing for 24 hours and then heating in a hydrogen atmosphere in an electric furnace. X-ray analysis of the specimens prepared from individual carbides of titanium and niobium showed the lines corresponding to the two carbides (TiC - 4.32 Å, NbC - 4.46 Å), whereas the alloy containing 87% TiC and 13% NbC showed only one phase with lattice parameter 4.37 ± 0.03 Å (TiC-NbC solid solution). The microhardness of niobium carbide and of the complex titanium-niobium carbide was shown to be 1 822 and 2 472 kg/mm^2. All the samples of titanium-tungsten carbide were single-phased with a crystal lattice of TiC. The powdered carbides were mixed with cobalt by wet grinding

Card1/4

The Scale-stability of Cermet Alloys Based on Titanium Carbide

for five days, pressed with a stress of 1 000 kg/cm^2 and sintered at 1 450 - 1 560 °C in hydrogen. Figures 1 and 2 show typical microstructures of TiC-NbC-Co and TiC-WC-Co. The alloys were tested at 900-1 200 °C for 100 hours, the gain in weight and the thickness of oxide layer being noted. Diagram 3 shows that with increase of NbC in TiC-NbC-Co alloys there is a sharp decrease in weight gain from 5-1 g/m^2 per hour. With further increase in NbC the weight gain is practically constant. Figure 4 shows the weight gain of alloys containing 25% Co and 3-15% NbC. The scale-stability is a maximum with 15% NbC at all temperatures. Further increase of NbC to 25% has no further effect. Varying the cobalt content showed that the weight gain was a minimum at 25% Co. Specimens prepared from simple carbides gave similar results to those prepared from complex carbides but in all cases the former had a greater weight gain than the latter. At 1 000 °C the surface has a grey colour due to breaking up of the scale and at 1 100 - 1 200 °C there is a thicker layer on the surface. The TiC-WC-Co alloys were prepared from the

The Scale-stability of Cermet Alloys Based on Titanium Carbide

complex carbides. Figure 5 shows the weight gain of alloys containing 15 and 30% WC both with 18 wt.% cobalt. At 900 °C, the weight gain is practically the same for both alloys but at higher temperatures the 30% WC alloy has a lower weight gain. The effect of Co content is shown in Figure 6 (the ratio TiC:WC is 65:35). With increase from 10 to 20% Co there is an increase in oxidation resistance which is more marked at higher temperatures. With alloys with TiC:WC ratio of 85:15 the effect of Co increase is less marked. At temperatures higher than 1 100 °C all the alloys oxidise rapidly. In both TiC-NbC and TiC-WC alloys oxidation spreads in the first instance along the cementing phase. The TiC-NbC-WC-Co alloy containing 10-15% NbC has better scale stability than TiC-WC-Co alloys but not as good as TiC-NbC-Co alloys. The TiC-15NbC-25Co alloy is suitable up to 1 100 °C and the TiC-30WC-15-20Co up to 900 °C.

Card3/4

SOV/136-59-3-14/21
The Scale-stability of Cermet Alloys Based on Titanium Carbide

There are 7 figures, 1 table and 13 references, 8 of which are English and 5 German.

ASSOCIATION: VNIITS

Card 4/4

15.2210, 15.2220, 18.8200

65696

SOV/130-59-10-13/16

AUTHORS: Brokhin, I.S., Olikhov, L.I. and Platov, A.B.

TITLE: Mechanical Properties of Ceramic Tool Materials and Hard Alloys at Elevated Temperatures

PERIODICAL: Tsvetnyye metally, 1959, Nr 10, pp 73-82 (USSR)

ABSTRACT: One of the new materials that have recently found wide application in the manufacture of cutting tools, drawing dies and other wear-resistant components, is a ceramic material based on sintered alumina and produced at the Moscow Hard Metals Combine under the name of TsM 332 (Ref 1). This product, characterized by finely crystalline structure (average grain size up to 2 μ) and low porosity (specific gravity - 3.9 g/cm^3), is made of commercial grade α-alumina with a small (about 0.5%) addition of MgO by sintering at approximately 1700°C; shrinking during sintering amounts to 18 to 20%. The object of the investigation described in the present paper was to measure hardness, transverse rupture stress, UTS and compressive strength of TsM-332 and certain other wear-resistant materials, both at room and elevated temperatures. Hardness measurements were taken in vacuum, using a diamond indenter, 1 kg load and polished cylindrical test

Card 1/7

Mechanical Properties of Ceramic Tool Materials and Hard Alloys at Elevated Temperatures

pieces 15 mm diameter and 5 mm high. The specimens were held at the test temperature for 20 min before applying the load of 30 sec duration; not less than six measurements were taken at each temperature, each new test temperature being attained by cooling. After cooling to room temperature, the specimens were photographed (x 420), the diagonals of the indentation were measured and the VPN values were found from the tables. The results are reproduced in the form of an $H_v(kg/mm^2)$ versus $t(^\circ C)$ curve in Fig 1a (curve 3) where, for comparison, the results obtained by other workers are also shown: curve 1, based on the measurements of Betaneli (Ref 5), who used a 250 kg load, and curve 2, based on data due to Kazakov (Ref 6), who used a 1 kg load. It will be seen that hardness of TsM-332 decreases monotonically and linearly with rising temperature from about 1800 VPN at room temperature to about 600 at 1000°C and to 350 at 1100°C. Fig 1a shows photographs of the diamond pyramid indentations made on TsM-332 specimens under the following conditions of loading and temperature:

Mechanical Properties of Ceramic Tool Materials and Hard Alloys at Elevated Temperatures

1 to 5 kg, 20°C (H_v equal 1800 kg/mm^2); 2 to 1 kg, 700°C (H_v equal 960 kg/mm^2); 3 to 1 kg, 1000°C (H_v equal 540 kg/mm^2). Hair cracks (originating at the corners of the indentations), visible clearly on these photographs, occurred even when the hardness measurement was taken at the highest test temperature; they were even more pronounced when a Rockwell machine (scale A, load 60 kg) was used (see Fig 3). No cracks were observed on specimens used for microhardness measurements (load 100 g) at room temperature, which gave values of H_v equal 1900 to 2000 kg/mm^2. In the next stage of the investigation, hardness of the following hard alloys was measured: (a) standard titanium-tungsten alloys T5K10, T14K8, T15K6, T30K4 and T5K6; (b) new types of tungsten-cobalt alloys (VK6V, VK8V, VK15V) characterized by high strength and coarsely-crystalline structure (average grain size of the WC phase ~ 3 to 5 μ) made by the method developed by VNIITS and based on tungsten obtained by reduction at 1200°C; (c) alloy VK6M, characterized by improved wear resistance and finely crystalline structure

65696
SOV/136-59-10-13/18

Mechanical Properties of Ceramic Tool Materials and Hard Alloys at Elevated Temperatures

(average WC grain size of approximately 1 μ) and made by a process involving intensified wet grinding of the powder mixture. The results of these measurements (load 1 kg, loading time - 30 sec) are reproduced in Table 1 (for the titanium-tungsten alloys) and Table 2 (for the tungsten-cobalt alloys) in which the test temperature (°C) is given in the first columns. Curves plotted in Fig 1b show the temperature dependence of H_V for the following alloys: 1 - T30K4; 2 - T15K6; 3 - T14K8; 4 - T5K10. The same relationship for the tungsten-cobalt alloys is illustrated by curves plotted in Fig 1B: 1 - VK6M; 2 - VK6V; 3 - VK8V; 4 - VK15V; 5 - (for comparison) TsM-332. Photographs of diamond pyramid indentations obtained on T5K10 specimens at (1) - 20, (2) - 600 and (3) - 1000°C (corresponding to H_V values of 1650, 850 and 260 respectively) are reproduced in Fig 2b; finally, similar photographs for VK8V specimens at 200, 600 and 1000°C (the corresponding H_V values being 1500, 650 and 200) are shown in Fig 2B (1, 2 and 3 respectively). In the next series of experiments, the

Card 4/7

Mechanical Properties of Ceramic Tool Materials and Hard Alloys at Elevated Temperatures

transverse rupture stress, $\sigma_{изг}$, of the investigated materials was determined at temperatures up to 1200°C, a universal testing machine P5, equipped with a silit heating device, was used for this purpose. The test pieces, measuring 5 x 5 x 40 mm, resting on prismatic supports made of heat-resisting material, were maintained at the test temperature for 5 to 7 min before the load was applied at a strain rate of 11 mm/min. The results for the TsM-332 specimens are given in Table 3 under the following headings: test temperature, °C; $\sigma_{изг}$, kg/mm^2; number of tested specimens; scatter of results, %. The data given in Table 3 are also reproduced graphically in Fig 4. The temperature dependence of $\sigma_{изг}$ of VK and TK alloys, is illustrated in Fig 5a and 5b respectively. Flat, radiused test pieces were used for the determination of the UTS of the investigated materials. (Tested TsM-332 specimens are shown in Fig 6.) A standard tensile testing machine, or a specially adapted creep testing apparatus, was employed for this purpose, a gradual application of the "dead weight" load being attained by the use of copper

Mechanical Properties of Ceramic Tool Materials and Hard Alloys at Elevated Temperatures

granules; particular care was taken to ensure axial loading of the brittle specimens and the results of any test, in which fracture of the test piece occurred at a distance of more than 5 mm from its centre, were ignored. UTS of TsM-332 determined in this manner was 15 to 16 kg/mm^2. In the final series of experiments, the compressive strength of TsM-332 was determined on cylindrical specimens (10 mm diameter and 15 mm thick), tested on a 30 t hydraulic machine equipped with hard alloy supports. 90 Specimens, taken from two batches of TsM-332, were tested; the scatter of the results amounted to 20%. The average values of the compressive strengths equal to 80 to 90 kg/mm^2, were much lower than those obtained by other workers. In the conclusions, it is claimed that the results of the present investigation are more accurate than those quoted in the literature. Attention is drawn to the fact that hardness of the VK6M alloy decreases with rising temperature at a rate much slower than that of other investigated materials (H_v of this alloy being 1400 kg/mm^2 at 600°C and that both

65696
SOV/136-59-10-13/18

Mechanical Properties of Ceramic Tool Materials and Hard Alloys at Elevated Temperatures

hardness and UTS of the ceramic material based on Al_2O_3 at 1200°C are higher than those of other materials. There are 6 figures, 3 tables and 10 references, 8 of which are Soviet and 2 German.

ASSOCIATION: VNIITS

Card 7/7

OL'KHOV, I. I.

PHASE I BOOK EXPLOITATION SOV/4874

Rakovskiy, Valentin Sergeyevich, Grigoriy Valentinovich Samsonov, and Iosif Ivanovich Ol'khov.

Osnovy proizvodstva tverdykh splavov (Fundamentals of Carbide-Alloy Production) Moscow, Metallurgizdat, 1960. 232 p. Errata slip inserted. 5,200 copies printed.

Ed.: A. K. Natanson; Ed. of Publishing House: M. S. Arkhangel'skaya; Tech. Ed.: P. G. Islent'yeva.

PURPOSE: This textbook is intended for students of nonferrous metallurgy tekhnikums, and engineers and technicians in the hard-alloy industry.

COVERAGE: The handbook was written in accordance with the course entitled "The Production of Hard Alloys," taught at tekhnikums specializing in nonferrous metals. It contains the fundamentals of powder metallurgy, manufacturing processes of all types of carbide alloys, characteristics of their properties, and inspection methods. The last section is devoted to the fundamentals of degree design projects. This book is

Card 1/9

claimed to replace obsolete books on the same subject written by V. S. Rakovskiy (1938, 1945) and N. R. Anders (1951). Chapters 4, 7, and 8 and paragraph 5 of chapter 3 were written by G. V. Samsonov, chapter 2 by G. V. Samsonov and the remainder by V. G. Rakovskiy. The authors thank A. K. Natanson for improvements made during editing. References follow individual chapters.

TABLE OF CONTENTS:

32333
S/081/61/000/024/052/086
B150/B102

15.2230

AUTHORS: Brokhin, I. S., Ol'khov, I. I., Platov, A. B.

TITLE: Some mechanical properties of ceramics based on aluminum oxide and hard alloys at high temperatures

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 353, abstract 24K207 (Sb. tr. Vses. n.-i. in-t tverdykh splavov, no. 2, 1960, 113 - 128)

TEXT: Investigations were made on the hardness of contemporary native ceramics, manufactured by the Moskovskiy kombinat tverdykh splavov (Moscow Combine of Hard Alloys) under mark ЦМ332 (TsM 332), at temperatures up to 1100°C and on the bending strength limit at room temperature and at high temperatures up to 1200°C. The ceramics are made from technically pure α-alumina with a small additive of mineralizer (0.5% MgO). Hardness of the ceramic was plotted as a function of temperature up to 1100°C. The hardness curves differ in their course at high temperatures; they are smoother and reduction of hardness occurs more slowly for specially fine-grained ceramics. It was confirmed that at the maximum heating

Card 1/2

36082

S/081/62/000/008/035/057
B156/B101

15.2400

AUTHORS: Brokhin, I. S., Ol'khov, I. I., Ashmarin, G. N., Baranov, A. I., Platov, A. B., Repkin, V. P.

TITLE: The heat resistance of cermets on titanium carbide base

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 8, 1962, 380, abstract 8K257 (Sb. tr. Vses. n.-i. in-t tverdykh splavov, no. 2, 1960, 135-147)

TEXT: The strength indices of two series of experimental heat-resistant cermets on titanium carbide base are established: the cermets are TiC - NbC - Co containing 3-20% NbC and 10-40% Co, and TiC - WC - Co containing 15-35% WC and 10-25% Co. Short and long duration tests were made at ~20°C and at high temperatures (up to 1200°C). A procedure for making high-temperature mechanical tests on brittle cermets was devised. It is shown that the bend strengths at 20 and 1000°C of the TiC - NbC - Co cermets are related to the content of the cementing metal Co (between 10 and 40%), at NbC contents of 10-15%; it was established that the highest strengths corresponds to a Co content of 25-30%. Curves are plotted for

Card 1/2

S/081/62/000/008/035/057
B156/B101

The heat resistance of cermets ...

the long-term (100 hrs) tensile strengths (σ_{100}) at high temperatures (up to 1200°C) of the cermet in question with relation to the temperature, the load, and test duration. [Abstracter's note: Complete translation.]

Card 2/2

36755
S/081/62/000/001/032/067
B151/B101

13.2400

AUTHORS: Brokhin, I. S., Ol'khov, I. I.

TITLE: Scale stability of metalceramic solid alloys based on titanium carbide

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1962, 306, abstract 1I182 (Sb. tr. Vses. n.-i. inst tverdykh splavov, no. 2, 1960, 148-157)

TEXT: A study of the scale-stability of 3 series of experimental metal ceramic solid alloys based on TiC at temperatures up to 1200°C has shown that in the TiC-NbC-Co series the optimum effect is given by an alloy containing 15% NbC and 25% Co, the rest of the alloy being TiC. Its scale-stability is considered to be satisfactory at temperatures up to 1100°C. Among the TiC-WC-Co alloys the best is one containing 30% WC; 15 - 20% Co, the rest being TiC. The scale-stability of this alloy is considered to be satisfactory up to 900°C. [Abstracter's note: Complete translation.]

Card 1/1

X

69382

18.1200A 18.6100

S/136/60/000/04/017/025
E091/E235

AUTHORS: Brokhin, I. S., Ol'khov, I. I., Ashmarin, G. M., Baranov, A. I., Platov, A. B., and Repkin, V. P.

TITLE: Heat Resistance of Titanium Carbide-Base Cermets

PERIODICAL: Tsvetnyye metally, 1960, Nr 4, pp 67-70 (USSR)

ABSTRACT: In this paper, the results of an investigation of the refractoriness of Ti-Nb and Ti-W base alloys produced by powder metallurgy methods (carbide solid solutions) with Co as binder are reported. The influence of the NbC, WC and the binding metal on the mechanical properties of TiC alloys has been studied at room temperature and at elevated temperatures in short-term and long-term tests. The experimental alloys were made by methods generally used for the manufacture of titanium carbides. The complex carbides TiC-WC, TiC-NbC and pure powdered cobalt were used as the starting materials. The complex carbides were prepared by water quenching a mixture of fine powders of the respective simple carbides from 2000 to 2200°C. In the TiC-Nb-Co alloys, the NbC content was varied from 0 to 25% and the Co content from 5 to 40% (remainder TiC), and in the TiC-WC-Co alloys, the WC content was varied from 15 to 35% and the Co

Card 1/5

69382

S/136/60/000/04/017/025
E091/E235

Heat Resistance of Titanium Carbide-Base Cermets

content from 10 to 25%. The elastic limit in bending was determined for prismatic specimens, 5 x 5 x 40 and 6 x 6 x 50 mm. Bend testing at high temperatures was carried out in a specially constructed device with a silicon carbide heater which was attached to an R-5 universal testing machine. The specimen was placed on supports made of a heat resisting carbide and fractured with a concentrated load; the distance between the supports was 30 mm and the speed of loading was 11 mm/minute. The temperature was measured by a Pt/Pt-Rh thermocouple, the junction of which was in direct contact with the specimen. For the determination of the UTS in tension and the long term refractoriness, flat radiused specimens, as proposed by S. V. Serensen, were used. The main feature of the high temperature testing of these specimens (Fig 1) is the fact that up to a given maximum temperature only the central "working" portion of the specimen is heated; the ends of the specimen which are fixed in grips are outside the hot zone of the furnace. The temperature of the "cold" ends

Card 2/5

69382
S/136/60/000/04/017/025
E091/E235

Heat Resistance of Titanium Carbide-Base Cermets

of the specimen does not exceed 800 to 900°C in the case of the upper, and 700 to 800°C in the case of the lower ends. The electric furnaces with a single piece tubular platinum heater, type P.I-1350, enable lengthy tests to be carried out at temperatures of up to 1350°C. The furnace is attached to the creep testing maching DST-5000, which has been specially reconstructed for testing cermet specimens and has been re-equipped with electrical gear registration and regulation apparatus (potentiometers). Damping asbestos packing was inserted under the supporting surfaces of the side faces of the specimen adjoining the grips. The temperature was measured with the Pt/Pt-Rh thermocouple passing through an orifice in the solid platinum heater; the junction was placed within 0.5 to 1 mm of the central portion of the specimen. Short term tests to fracture at high temperatures were carried out with the same machines and attachments as the long term (100 hours) tests. Fig 2 shows the UTS in bending of TiC-NbC-Co (10 to 15% NbC) alloys in relation to cobalt content (1 - at 20°C; 2 - at 1000°C). Fig 3 shows the UTS in bending of TiC-NbC-Co (25% Co) alloys in relation

Card 3/5

Heat Resistance of Titanium Carbide-Base Cermets

to NbC content. Fig 4 shows the change in UTS on straining a TiC-NbC-Co alloy in relation to temperature. Fig 5 shows the UTS in bending of TiC-WC-Co alloys containing 30% WC at 10 and 23% Co, in relation to temperature (1 - 10% Co; 2 - 23% Co). Fig 6 shows the change in UTS in tension of a TiC-WC-Co alloy of the basic composition (65 : 35) + 15% Co, in relation to temperature; Fig 7 shows the limiting long-term (100 hours) refractoriness of a TiC-WC-Co alloy of the original composition (1 - 950°C; 2 - 1100°C). For the investigated cermets, the relationship $\sigma_b / \sigma_{bending} \approx 1 - 2$ (approximately 50%) is characteristic. The specific gravity of the TiC-NbC-Co alloys is 5.9 to 6.2 g/cm^3 and that of the TiC-WC-Co alloys is 6.5 to 7 g/cm^3. For the determination of the modulus of elasticity of the experimental alloys, the angle of bend under various loads was measured directly and from that, the value of E was calculated by a well known formula. The specimens were plates 0.3 to 0.5 mm thick, made by compressing and sintering plates of 1 mm thickness and subsequently grinding with boron carbide. The tests were carried out at room temperature in a device made

Card 4/5

69382

S/136/60/000/04/017/025
E091/E235

Heat Resistance of Titanium Carbide-Base Cermets

by B. I. Pribilov. The specimens were placed on refractory supports and loaded gradually with loads of 50 to 1000 g. The degree of bending was measured with a micrometer. For TiC-NbC-Co alloys, E was found to be 30 500 to 31 500 kg/mm^2, and for TiC-WC-Co alloys, 38 000 to 40 000 kg/mm^2. There are 7 figures and 3 references, 2 of which are Soviet and 1 German.

ASSOCIATION: VNIITS

Card 5/5

BYUYRIN, A.I.; GOLUBEV, A.I.; NEKRASOV, V.P.; GULIY, V.M.; OL'KHOV, I.N.; KOLKHODZHAYEV, A.V.

Making boreholes with smaller diameter at the Tekeli Mine. Gor.zhur. no.8:27-30 Ag '65. (MIRA 18:10)

OLKHOV, N. P. DECEASED 1963/1

c. 1962

METALLURGY

SEE ILC

OL'KHOV, Oleg Alekseyevich; GOMENYUK, L.I., red.; SOKOLOVA, N.N., tekhn. red.

[Application of atomic energy in agriculture]Primenenie atomnoi energii v sel'skom khoziaistve. Moskva, Sel'khozizdat, 1962. 117 p. (MIRA 15:11)
(Atomic energy in agriculture)

S/056/63/044/002/021/065
B102/B186

AUTHORS: Olkhov, O. A., Provotorov, B. N.

TITLE: Quantum-statistical theory of magnetic resonance in systems with strong exchange interaction

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 2, 1963, 514-521

TEXT: The authors show that the equations of magnetic resonance can be obtained from the exact equation for the density matrix

$$i\hbar\partial\rho(t)/\partial t = -i\,[-\hbar\omega_0\hat{S}_z + (\mu H_1/2s)(\hat{S}^+e^{i\omega t} + \hat{S}^-e^{-i\omega t}) + \\ + \hat{H}_{dip} + \hat{H}_{ex}, \rho(t)], \qquad (1);$$

$$\hat{H}_{dip} = g^2\beta^2 \sum_{i<k}' \left(\frac{\hat{\mathbf{s}}_i\hat{\mathbf{s}}_k}{r_{ik}^3} - 3\,\frac{(\hat{\mathbf{s}}_i\mathbf{r}_{ik})(\hat{\mathbf{s}}_k\mathbf{r}_{ik})}{r_{ik}^5} \right),$$

$$\hat{H}_{ex} = -\frac{1}{2}\sum_{i>k} J_{ik}\hat{\mathbf{S}}_i\hat{\mathbf{S}}_k.$$

Card 1/5

Quantum-statistical theory ...

$\hat{S}_{x,y,z}$ are the operators of the total-spin projections ($\hat{S}^{\pm 1} = \hat{S}_x \pm i\hat{S}_y$), s_i is the spin operator at the i-th lattice site, $\vec{r}_{ik}$ connects the i-th with the k-th site, J_{ik} is the exchange integral, ω and H_1 are frequency and amplitude of the alternating magnetic field, $\omega_0 = \mu H_0/\hbar s$. Under the assumption that $H_{ex} \gg H_{dip}$, $\hbar\omega_0 S_z$, and by applying Bloch's method (Phys. Rev. 105, 1206, 1957) equations are derived which characterize the behavior of magnetization in a system with strong exchange interaction at $T \gg T_{Curie}$, which differ from that derived previously (e.g. Phys. Rev. 100, 1243, 1955) by taking into account the mean variation of the exchange interaction energy during saturation. A rotating coordinate system is introduced into

$$\rho(t) = \exp(i\omega\hat{S}_z t)\,\rho'(t)\exp(-i\omega\hat{S}_z t), \qquad (2)$$

where $\rho'(t)$ is the new density matrix;

$$\rho'(t) = \exp(-i\hat{H}t/\hbar)\,\rho''(t)\exp(i\hat{H}t/\hbar), \quad \hat{H} = \hat{H}_{ex} + \mu\hat{S}H_{0\phi\phi}/s. \qquad (4)$$

Card 2/5

$$\partial\rho''(t)/dt = -i\hbar^{-1}[\hat{V}'(t), \rho''(t)],$$
$$\hat{V}'(t) = \exp(i\hat{H}t/\hbar)\,\hat{V}(t)\exp(-i\hat{H}t/\hbar). \quad (5).$$

The components $\varrho_1''(t)$, $\varrho_2''(t)$, where $\varrho'' = \varrho_1'' + \varrho_2''$, and $\varrho_1'(t)$, $\varrho_2'(t)$ are derived as functions of the $\hat{S}$ components, H_{ex}, and $\hat{V}(t) = \sum_{m=-2}^{+2} \hat{H}^m e^{im\omega t}$. For the rotating coordinate system the equations

$$\begin{aligned}
\partial S_x/\partial t &= \gamma[SH_{эфф}]_x - S_x/T_2 - S_y/T_2,\\
\partial S_y/\partial t &= \gamma[SH_{эфф}]_y - S_y/T_2 + S_x/T_2,\\
\partial S_z/\partial t &= \gamma[SH_{эфф}]_z - (S_z + \mathcal{H})/T_1,\\
\partial\mathcal{H}/\partial t &= -\varkappa(S_z + \mathcal{H})/T_1.
\end{aligned} \quad (15)$$

are finally obtained, where

$$\mathcal{H} = \hbar\omega\,\mathrm{Sp}\,\hat{S}_z^2\delta(t), \quad \gamma = \mu/\hbar, \quad \varkappa = \hbar^2\omega^2\,\mathrm{Sp}\,\hat{S}_x^2/\mathrm{Sp}\,\hat{H}_{ex}^2,$$
$$T_1^{-1} = 2\pi\sum_{m=1,2} m^2\,\mathrm{Sp}'\,\hat{H}_{m\omega}^m\hat{H}_{-m\omega}^{-m}/\hbar^2\,\mathrm{Sp}\,\hat{S}_z^2,$$

Card 3/5

Quantum-statistical theory ...

$$T_2^{-1} = \pi \sum_{m=-2}^{m=+2} \mathrm{Sp}'\, \hat{S}^{-1} [\hat{H}^m_{m\omega} [\hat{H}^{-m}_{-m\omega}, \hat{S}^{+1}]]/\hbar^2 \mathrm{Sp}\, \hat{S}_z^2,$$

$$T_3^{-1} = \sum_{m=-2}^{+2} \mathrm{P} \int_{-\infty}^{+\infty} \frac{d\omega'}{m\omega - \omega'} \mathrm{Sp}'\, \hat{S}^{-1} [\hat{H}^m_{\omega'} [\hat{H}^{-m}_{-\omega'}, \hat{S}^{+1}]]/\hbar^2 \mathrm{Sp}\, \hat{S}_z^2.$$

In order to obtain the magnetic resonance equations, (15) is completed by adding spin-lattice interaction terms characterized by the relaxation times $\tau_{0,1,2}$, and assumes the form

$$\begin{aligned} \partial S_{x,y}/\partial t &= \gamma\, [S\mathrm{H}'_{\mathrm{эфф}}]_{x,y} - (T_2^{-1} + \tau_2^{-1})\, S_{x,y}, \\ \partial S_z/\partial t &= \gamma\, [S\mathrm{H}'_{\mathrm{эфф}}]_z - (S_z + \mathcal{H})/T_1 + (S_z^0 - S_z)/\tau_1, \\ \partial \mathcal{H}/\partial t &= -\varkappa\, (S_z + \mathcal{H})/T_1 + (\mathcal{H}^0 - \mathcal{H})/\tau_0. \end{aligned} \qquad (17).$$

With $\tau_{1,2} \gg T_{1,2}$ (17) can be simplified and its stationary solutions (subscript $c\tau$) are

Card 4/5

Quantum-statistical theory ...

$$S_{x,\,ст} = \gamma H_1 (\omega - \omega_{0,\,эфф})\, T_2^2 S_z^0/D,$$
$$S_{y,\,ст} = -\gamma H_1 T_2 S_z^0/D,$$
$$S_{z,\,ст} = [1 + (\omega - \omega_{0,\,эфф})^2 T_2^2]\, S_z^0/D,$$
$$\mathcal{H}_{ст} = \mathcal{H}^0 [1 - \varkappa\gamma^2 H_1^2 \tau_0 T_2/D], \qquad (18).$$
$$D = 1 + (\omega - \omega_{0,\,эфф})^2 T_2^2 + \gamma^2 H_1^2 T_1 T_2 (1 + \varkappa\tau_0/T_1).$$

In the discussion the results are compared with experimental ones by Bloembergen and Wang (Phys. Rev. 93, 72, 1954). The Lorentz-type shape of the absorption line and its weak temperature dependence at saturation are in close agreement with the experiment. The theoretical results indicate a shift of the absorption peak and a change of the line width when the constant field H_0 is changed.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

SUBMITTED: June 8, 1962

Card 5/5

OL'KHOV, O.A.

Quantum statistical theory of ferromagnetic resonance in the high temperature range. Fiz. tver tela 5 no.9:2448-2454 S '63.
(MIRA 16:10)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

OL'KHOV, O.A.; PROVOTOROV, B.N.

Quantum statistical theory of ferromagnetic resonance. Dokl. AN SSSR 152 no.3:591-594 S '63. (MIRA 16:12)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom V.N.Kondrat'yevym.

L 4882-66 EWT(1)/EPF(c) IJP(c) WW/GG

ACC NR: AP5019837 UR/0181/65/007/008/2282/2285

AUTHOR: Ol'khov, O. A. 44 55

TITLE: On the account of spin-lattice relaxation in the derivation of the equations of ferromagnetic resonance 21 44 55

SOURCE: Fizika tverdogo tela, v. 7, no. 8, 1965, 2282-2285

TOPIC TAGS: ferromagnetic resonance, spin lattice relaxation, magnetization, quantum statistics

ABSTRACT: This is a continuation of earlier work by the author (with B. N. Provotorov, ZhETF v. 44, 514, 1963; DAN SSSR v. 152, 519, 1963), where the equations of motion of the magnetization of a ferromagnet in an alternating magnetic field were derived by the density-matrix method, with quantum-statistical account of the spin-lattice relaxation. In the present paper the contact between the spin system and the crystal lattice is taken into account not phenomenologically, but from quantum-statistical considerations. It is shown that account of spin-lattice relaxation, within the framework of the employed density-matrix method, does not raise any principal difficulties and leads only to a renormalization of the relaxation constants. This means that account of spin-lattice relaxation does not change the originally derived equations. "The author thanks B. N. Provotorov for numerous discussions." Orig. art. has: 18 formulas.

44 55

Card 1/2

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ACC NR: AP5019837

4

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR, Moscow (Institute of Chemical Physics, AN SSSR)

SUBMITTED: 03Feb65 ENCL: 00 SUB CODE: SS, GP

NR REF SOV: 003 OTHER: 000

BC

Card 2/2

ZLOTIN, Vladimir Isaakovich; KAZHDAN, Shimon Mordukhovich; TUNKEL', Naum Ruvimovich; SHELESHKOV, Konstantin Konstantinovich. Prinimali uchastiye: GRIBANOV, A.F.; OL'KHOV, V.I.; POTAPOV, M.G., kand. tekhn. nauk, retsenzent; NURMUKHAMEDOVA, V.F., red. izd-va; OVSEYENKO, V.G., tekhn. red.

[Electric locomotive and dump car haulage in open pits] Elektrovozo-dumpkarnoe khoziaistvo na kar'erakh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1962. 309 p. (MIRA 15:5)
(Mine railroads) (Strip mining)

ASVADUROV, D.S., inzh.; SHISHKIN, R.G., inzh.; OL'KHOV, V.I., inzh.

Use of suspended transportation in one-story industrial buildings of the new type. Prom. stroi. 40 no.9:16-19 '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pod"yemno-transportnogo mashinostroyeniya (for Asvadurov).
2. Gosudarstvennyy institut po proyektirovaniyu promyshlennogo stroitel'stva (for Shishkin, Ol'khov).
(Conveying machinery)

GRIBANOV, A.F.; ZLOTIN, V.I.; OL'KHOV, Ye.N.; SHELESHKOV, K.K.; ORLOV, Ye.I., redaktor; SABITOV, A., tekhnicheskiy redaktor; PROZOROVSKAYA, V.L., tekhnicheskiy redaktor

[The repair of industrial electric trains] Remont promyshlennykh elektrovozov. Moskva, Ugletekhizdat, 1954. 362 p. (MLRA 8:4)
(Railroads, Industrial) (Electric railroads)

OLKIEWICZ, A.; CHUDZINSKI, T.; MIELNICZ, Z.

"Memories from Tourist Excursions." P. 15,
(TURYSTA, No. 1, Jan. 1954, Warszawa, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3,
No. 12, Dec. 1954, Uncl.

CLKIEWICZ, A.

"Ancient City Hall of Chelmno", P. 7, (TURYSTA, No. 8, August 1954, Warsaw, Poland)

SO: Monthly List of East European Accessions (EIAL), LC, Vol. 4, No. 3, March 1955, Uncl.

OLKIEWICZ, M.; SKOWRO., S.; MAYOR, K.

Further researches on the effect of the removal of the telencephalon on regeneration. p.77.
FOLIA BIOLOGICA (Panstwowe Wydawnictwo Naukowe) Warszawa
Vol. 2, no. 2, 1954

So. East European Accessions List Vol. 5, No. 9 September 1956

33724
P/035/62/000/004/002/004
D265/D304

26.2187
AUTHOR: Olko, E., Engineer

TITLE: Hydraulic gear pump

PERIODICAL: Przegląd mechaniczny, no. 4, 1962, 125

TEXT: The paper describes the Polish patent No. 45154, Kl. 59e, gr. 3/01 granted to the owner: WSK - Wrocław on July 14, 1960 for the author's invention of a hydraulic gear pump, whose main features are automatic adjustment for the excess of pressure of the liquid contained in the space between the teeth, predetermined constant level of mutual reactions of the bearing bushes and of the end thrusts on the gears' end faces. Referring to the figure, the bearing bushes are provided with flats (3) and are keyed together, thus preventing the misplacement of the relief passages (5). The initial end thrust between the bearing bushes and gears end faces is provided during starting by springs (10). There is 1 figure.

Card 1/2

OLKO, Eugeniusz, inz.

State of hydraulic engineering for power production in Poland.
Przegl mechan 21 no.23:714-716 10 D '62.

1. Wytwornia Sprzetu Komunikacyjnego, Wroclaw.

DADAYAN, G.T.; OL'KOV, P.L.; GRYAZNOV, B.V.; SHAKHSUVAROVA, G.V.; YAKIMOVETS, N.L.; ALYUKOV, I.T.

Low temperature dewaxing of oils with the use of methyl ethyl ketone. Khim.i tekh.topl.i masel 6 no.6:17-21 Je '61. (MIRA 14:7)

1. Novogroznenskiy neftezavod; Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva i Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke nefti.
(Petroleum--Refining)

AKIMOV, V.S.; DADAYAN, G.T.; OL'KOV, P.I.

Increasing the effectiveness of the washing of a lump of fairly oil-free paraffin in the cylinders of the vacuum filters in dewaxing units. Trudy Bash NIINP no.5:110-117 '62. (MIRA 17:10)

DADAYAN, G.T.; OL'KOV, P.I.; GRYAZNOV, B.V.; SHARNUVAROVA, G.V.

Using methylethyl ketone in the dewaxing of oils under plant conditions. Trudy Bash NIINP no.5:130-139 '62.

(MIRA 17:10)

L 12298-63 EPF(c)/EWT(m)/BDS AFFTC/APGC Pr-4 EW/DJ/MN
S/081/63/000/005/055/075

AUTHOR: Dadayan, G. T., Ol'kov, P.L., Gryaznov, B. V. and Shakhsuvarova, G.V.

TITLE: The use of methylethyl ketone in the deparaffinization of oils under industrial conditions

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 5, 1963, 503, abstract 5P186 (Tr. Bashkirsk. n.i in-t. po pererabotke nefti, 1962, no. 5, 130-139)

TEXT: The results of an experimental run of a set up for deparaffinizating NUNPZ using methylethyl ketone (MEK) instead of acetone for deparaffinizing MK-8 oil and transformer oil are given. It was shown that the use of MEK permits reduction of the gradient of deparaffinization from 9° C (acetone) to 4°C and increases permeability of the apparatus by 20%. In addition the actual speed of filtration significantly exceeded the planned speed. For normal operation of the refrigerant section of the apparatus, under conditions of extraction of oil with solidification temperature of -55°C, it was necessary to supply it with an ethane fraction, consisting of ≥ 95-96% ethane. There were

aimed at increasing the possibility of taking advantage of the use of MEK. B.L.

[Abstractor's note: Complete translation]

Card 1/1

OL'KOV, P.L.; CHERNOZHUKOV, N.I.

Two-stage dewaxing using crystallization and the complex formation of carbamide. Izv. vys. ucheb. zav.; neft' i gaz 7 no.12: 45-48 '64 (MIRA 18:2)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akademika I.M. Gubkina.

TSETLIN, V.M.; DENISOV, V.F.; TSEDILIN, S.A.; Prinimali uchastiye: SASIN, V.I., mladshiy nauchnyy sotrudnik; GUDIN, B.S., master; DRACHEVA, T.V., laborantka; OL'KOV, V.T., laborant; SLOVIKOVSKIY, A.A., laborant

Investigating the effect of various factors on the process of nonferrous metal dust coagulation in a sound field. Sbor. nauch. trud. Gintsvetmeta no.19:595-607 '62.

(MIRA 16:7)

(Nonferrous metals—Metallurgy) (Aerosols)
(Sound waves—Industrial applications)

SPERANSKIY, B.A., kand.tekhn.nauk; SHAVSHUKOVA, G.N., inzh.; OL'KOV, Yu.I., inzh.

Methods of prestressing steel structures with stressed elements of high-strength steel. Trudy NII prom.zdan.i soor. no.5:124-143 '61. (MIRA 15:4)

(Steel, Structural)

LABZENKO, V.I., kand. tekhn. nauk; SMIRNYAGIN, Yu.V., inzh.; VOLODARSKIY, B.Ya., inzh.; FLOROV, R.S., kand. tekhn.nauk; SPERANSKIY, B.A., kand. tekhn.nauk; SHAVSHUKOVA, G.N., inzh.; OL'KOV, Ya.I., inzh.; TAMPLON, F.F., inzh.; SUKHANOV, V.P., inzh.; TIMASHEV, S.A., inzh.; BOLOTINA, A.V., red.izd-va; KOROBKOVA, N.I., tekhn. red.

[Progressive metal elements for industrial construction] Progressivnye metallicheskie konstruktsii dlia promyshlennogo stroitel'stva. [By]V.I.Labzenko i dr. Pod red. V.I.Labzenko i R.S.Florova. Moskva, Gosstroiizdat, 1963. 183 p. (MIRA 16:4)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut po stroitel'stvu, Sverdlovsk.
(Steel, Structural) (Aluminum alloys)

OL'KOV, Ya.I.

Selecting optimal cross sections of bent profiles for centrally compressed rods. Trudy Ural.politekh.inst. no.131:79-87 '63.
(MIRA 16:12)

OL'KOVA, M.P.; SOLODIVNIKOV, Yu.P.

Typhoid and paratyphoid fever carriers. Report No.1 Methods of detection and control of typhoid and paratyphoid fever carriers; a review of foreign literature. Zhur. mikrobiol.; epid. i immun. 41 no.6:53-56 Je '64. (MIRA 18:1)

1. I Moskovskiy ordena Lenina meditsinskiy institut imeni Sechenova.

OL'KOVA, M.P.

Epidemiological significance of typhoid fever bacteria carriers. Zhur. mikrobiol., epid. i immun. 41 no.9:90-93 S '64. (MIRA 18:4)

1. I Moskovskiy ordena Lenina meditsinskiy institut imeni Sechenova.

OL'KOVA, N.V.

Area inhabited by a single family of Daurian pikas. Izv. Irk. gos. protivochum. inst. 12:181-187 '54. (MIRA 10:12)
(BORZYA DISTRICT--PIKAS)

Ol'kova, N. V.

NEKIPELOV, N.V.; OL'KOVA, N.V.

Methods of estimating the attractiveness of baits based on experiments with the gray rat. Izv. Irk. gos. protivochum. inst. 12: 241-244 '54. (MIRA 10:12)
(RATS) (RODENT CONTROL)

KLETS, E.I.; AKHRUSTSELEVSKIY, V.P.; KOLESNIK, R.S.; KUDINOVA, Z.S.; OL'KOVA, N.V.; SMIRNOVA, L.A.

Susceptibility of tarbagans and Eversmann susliks to experimental plague. Tez.i dokl.konf.Irk.gos.nauch.-issl.protivochum.inst. no. 1:15-17 '55. (MIRA 11:3)
(RODENTIA--DISEASES AND PESTS) (PLAGUE)

OL'KOVA, N.V.

KIEBS, B.I.; KOLESNIK, R.S.; KHRUSTSELEVSKIY, V.P.; SMIRNOVA, L.A.; KUDINOVA, Z.S.; OL'KOVA, N.V.

Experimental plague in tarbagans and Eversmann susliks. Tez.i dokl. konf. Irk.gos.nauch.-issl.protivochum. inst. no.2:23-24 '57. (MIRA 11:3)
(PLAGUE)
(RODENTIA--DISEASES AND PESTS)

OL'KOVA, N.V.

Cytological study of Eversmann susliks and tarbagans in experimental plague. Tez. i dokl.konf.Irk.gos.nauch.-issl.protivochum. inst.no.2: 43-45 '57. (MIRA 11:3)

(PLAGUE) (RODENTIA--DISEASES AND PESTS)

KLETS, E.I.; KHRUSTSELEVSKIY, V.P.; KOLESNIK, R.S.; KUDINOVA, Z.S.; OL'KOVA, N.V.; SMIRNOVA, L.A.

Susceptibility of Siberian marmots and long-tailed susliks to experimentally induced plague. Izv.Irk.gos.nauch.-issl. protivochum.inst. 14:3-18 '57. (MIRA 13:7)
(RODENTIA--DISEASE) (PLAGUE)

KLETS, E.I.; KOLESNIK, R.S.; KHRUSTSELEVSKIY, V.P.; SMIRNOVA, L.A.; KUDINOVA, Z.S.; OL'KOVA, N.V.

Experimental plague among marmots and long-tailed susliks. Izv.Irk.gos.nauch.-issl.protivochum.inst. 20:15-30 '59. (MIRA 13:7)

(PLAGUE) (MARMOTS--DISEASES AND PESTS)
(SUSLIKS--DISEASES AND PESTS)

OL'KOVA, N.V.

Cytological data on experimental plague in long-tailed susliks. Izv. Irk. gos. nauch.-issl. protivochum. inst. 20:31-41 '59. (MIRA 13:7)

(PLAGUE) (SUSLIKS--DISEASES AND PESTS)

OL'KOVA, N.V.

Cytological data on experimental plague in long-tailed susliks and in marmots in relation to their fatness. Izv.Irk.gos.nauch.-issl.protivochum.inst. 20:43-54 '59. (MIRA 13:7)
(PLAGUE) (SUSLIKS--DISEASES AND PESTS)
(MARMOTS--DISEASES AND PESTS)

OL'KOVA, N.V.; SMIRNOVA, L.A.

Seasonal susceptibility of marmots and long-tailed susliks to experimental plague. Izv. Irk. gos. nauch.-issl. protivochum. inst. 21:70-81 '59. (MIRA 14:1)
(MARMOTS--DISEASES AND PESTS)
(SUSLIKS--DISEASES AND PESTS) (PLAGUE)

OL'KOVA, N.V.

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Acetylene generators of the combined GVR AND GNV-type system.
Trudy VNIIAvtogen no.3:180-204 '55. (MIRA 11:12)
(Acetylene generators)

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USSR/Chemistry - Acetylene FD-2528

Card 1/1 Pub. 50 - 7/14

Authors : Shashkov, A. N., Strizhevskiy, I. I., Ol'kovskiy, V. F., Matveyev, N. N.

Title : Improvement of efficiency and increased automatization in the operation of acetylene-filling equipment

Periodical : Khim. prom. No 4, 222-227, Jun 1955

Abstract : Describe the design and operation of small units installed at consumer plants and used for the production from calcium carbide of dissolved acetylene filled into cylinders. Various improvements in the design and operation of the generator and compressor are described. Power to the carbide feed is furnished by an engine of the membrane type activated by water or gas (e. g. compressed air). By this means the danger of explosions is reduced. Four figures, 2 graphs, 5 tables.

Institution : All-Union Scientific Research Institute of the Autogenous Working of Metals (VNIIAVTOGEN)

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(LIPASES,
phospholipase C from Clostridium perfringens, eff. on saturated lecithins in aqueous solution (Pol))
(CLOSTRIDIUM PERFRINGENS,
same)
(LECITHIN,
eff. of phospholipase C from Clostridium perfringens on lecithin in aqueous solution (Pol))

KOCHANSKA, Zofia; WROBLEWSKA, Zofia; OLKOWSKA, Danuta

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1. Z Zakladu Wirusologii PZH w Warszawie.
(NUCLEIC ACIDS virol)
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(ANTIGENS) (ANTIBODIES)

POLAND

WROBLEWSKA-MULARCZYK, Zofia and OLKOWSKA, Danuta (with technical assistance of SZARECKA, Alicia and ROZWADOWSKA, Teresa), Virusology Research Office (Zaklad Virusologii) of the PZH [Panstwowy Zaklad Higieny, State Institute of Hygiene) (Director: Prof. Dr. F. PRZESMYCKI)

"Investigations on Arbor Viruses Never Previously Isolated in Poland."

Warsaw, Przeglad Epidemiologiczny, Vol 16, No 3, 62, pp 265-272.

Abstract: [Authors' English summary modified] Serological screening of 1039 healthy persons for the presence of Arbor virus groups A and B antibodies has been carried out by means of the haemagglutination test. Findings for the B group were: tick-borne encephalitis 2.5 percent, explained by the presence of foci in Poland, and 1.09 and 1.3 percent respectively for Japanese B encephalitis and West Nile fever, explained by a cross reaction within the group. Positive findings for the A group (West equine encephalitis) on the order of 2.3 percent suggests the presence in Poland of foci. Investigations to be continued. 4 English and 10 Polish references.

WROBLEWSKA-MULARCZYKOWA, Zofia; ZOLTOWSKI, Zbigniew; DOBRZYNSKI, Leszek; PRZESMYCKI, Feliks; SZYKULA, Roman; OLKOWSKA, Danuta; SWOBODZINA, Ewa; SZYMANSKI, Stanislaw; KOZLOWSKI, Slawomir; ZUKOWSKI, Kazimierz.

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(UMBILICUS, dis.)

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Butazolidin in thrombophlebitis. Polski przegl. chir. 33 no.5:461-465 '61.

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(THROMBOEMBOLISM ther) (PHENYLBUTAZONE ther)